WHAT IS CLAIMED IS:

1. A beam irradiation apparatus being characterized in that the beam irradiation apparatus has means for scanning an continuously output energy beam on an irradiated object, the means for scanning has a specular body, the specular body is fixed to a shaft so as to be set on an optical axis of the beam, and the specular body rotates on the shaft as a center.

2. The beam irradiation apparatus according to claim 1, wherein the continuously output energy beam is emitted from an oscillator.

3. The beam irradiation apparatus according to claim 1, wherein the specular body has a plane surface or a curved surface.

4. The beam irradiation apparatus according to claim 1, wherein the beam irradiation apparatus comprises a plurality of said means for scanning.

5. The beam irradiation apparatus according to claim 1, wherein the shaft has a supporting bar in one end or in both ends thereof.

6. The beam irradiation apparatus according to claim 1 further comprising means for moving the irradiated object and the beam relatively.

7. The beam irradiation apparatus according to claim 1, wherein the means for

moving has a control apparatus for controlling so as to move in synchronization with scanning of the means for scanning.

8. The beam irradiation apparatus according to claim 1, wherein the continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

9. The beam irradiation apparatus according to claim 1 further comprising an optical system for shaping the continuously output energy beam into linear, wherein the optical system is arranged between an oscillator of the beam and the means for scanning.

10. The beam irradiation apparatus according to claim 1 further comprising an fθ lens arranged between the means for scanning and the irradiated object.

11. The beam irradiation apparatus according to claim 1 further comprising a telecentric fθ lens between the means for scanning and the irradiated object.

12. The beam irradiation apparatus according to claim 1, wherein the means for scanning the energy beam on the irradiated object is a galvanometer mirror.

13. A beam irradiation apparatus being characterized in that the beam irradiation apparatus has means for scanning an continuously output energy beam on an irradiated object, the means for scanning has a plurality of specular bodies, the plurality

of specular bodies is fixed to a shaft on an optical axis of the beam so that side surfaces of the specular bodies do not contact each other, and the plurality of specular bodies rotates on the shaft as its center.

14. The beam irradiation apparatus according to claim 13, wherein the plurality of specular bodies has a plane surface or a curved surface.

15. The beam irradiation apparatus according to claim 13, wherein the continuously output energy beam is emitted from an oscillator.

16. The beam irradiation apparatus according to claim 13, wherein a number of the means for scanning is more than one.

17. The beam irradiation apparatus according to claim 13 further comprising means for moving the irradiated object and the beam relatively.

18. The beam irradiation apparatus according to claim 13, wherein the means for moving has a control apparatus for controlling so as to move in synchronization with scanning of the means for scanning.

19. The beam irradiation apparatus according to claim 13, wherein the continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

20. The beam irradiation apparatus according to claim 13 further comprising an optical system for shaping the continuously output energy beam into linear, wherein the optical system is arranged between an oscillator of the beam and the means for scanning.

21. The beam irradiation apparatus according to claim 13 further comprising an fθ lens between the means for scanning and the irradiated object.

22. The beam irradiation apparatus according to claim 13 further comprising a telecentric fθ lens between the means for scanning and the irradiated object.

23. The beam irradiation apparatus according to claim 13, wherein the means for scanning the energy beam on the irradiated object is a polygon mirror.

24. In a beam irradiation method, in which an irradiated object is relatively scanned and irradiated with a continuously output energy beam, the energy beam irradiation method being characterized in that a specular body that can rotate is provided, and the irradiated object is processed by reflecting the beam on the specular body.

25. The beam irradiation method according to claim 24, wherein the means for scanning the continuously output energy beam has a galvanometer mirror.

26. The beam irradiation method according to claim 24, wherein the continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a

YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

27. In a beam irradiation method, in which an irradiated object is relatively scanned and irradiated with a continuously output energy beam, the energy beam irradiation method being characterized in that a plurality of specular bodies is provided so as not to contact each other, and the irradiated object is processed by reflecting the beam sequentially on the plurality of specular bodies.

28. The beam irradiation method according to claim 27, wherein a relative position of the energy beam and the irradiated object is controlled for every surface of the plurality of the specular bodies

29. The beam irradiation method according to claim 27, wherein the means for scanning the continuously output energy beam has a polygon mirror.

30. The beam irradiation method according to claim 27, wherein the continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

31. In a beam irradiation method, in which an irradiated object is relatively scanned and irradiated with a continuously output energy beam, the energy beam irradiation method being characterized in that N number of specular bodies ($1 \leqq n \leqq N$: n is an integer number) are provided so as not to contact each other, the irradiated object is processed by reflecting the beam sequentially on the N number of specular bodies,

and a relative position Y(n) of the beam and the irradiated object is set after scanning by an n^{th} specular body ends.

32. The beam irradiation method according to claim 31, wherein the means for scanning the continuously output energy beam has a polygon mirror.

33. The beam irradiation method according to claim 31, wherein the continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

34. In a beam irradiation method, in which an irradiated object is relatively scanned and irradiated with a continuously output energy beam, the energy beam irradiation method being characterized in that a plurality of specular bodies is provided, and the irradiated object is processed while controlling a relative position of the beam and the irradiated object for every surface of the plurality of specular bodies.

35. The beam irradiation method according to claim 34, wherein the means for scanning the continuously output energy beam has a polygon mirror.

36. The beam irradiation method according to claim 34, wherein the continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

37. A method for manufacturing a thin film transistor, which is characterized in

forming a crystalline semiconductor film using a beam irradiation apparatus, said beam irradiation apparatus having means for scanning a continuously output energy beam on an irradiated object, the means for scanning having a specular body, the specular body being fixed to a shaft so as to be set on an optical axis of the beam and rotating on the shaft as its center.

38. The method for manufacturing a thin film transistor according to claim 37 further comprising forming a gate electrode over the crystalline semiconductor film, and forming an impurity region in the semiconductor film using the gate electrode as a mask.

39. The method for manufacturing a thin film transistor according to claim 37, wherein a number of the means for scanning is more than one.

40. The method for manufacturing a thin film transistor according to claim 37, wherein the continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

41. A method for manufacturing a thin film transistor, which is characterized in forming a crystalline semiconductor film using a beam irradiation apparatus, said beam irradiation apparatus having means for scanning a continuously output energy beam on an irradiated object, the means for scanning having a plurality of specular bodies, the plurality of specular bodies being fixed to a shaft so as to be set on an optical axis of the beam and rotating on the shaft as its center.

42. The method for manufacturing a thin film transistor according to claim 41

further comprising forming a gate electrode over the crystalline semiconductor film, and forming an impurity region in the semiconductor film using the gate electrode as a mask.

43. The method for manufacturing a thin film transistor according to claim 41, wherein a number of the means for scanning is more than one.

44. The method for manufacturing a thin film transistor according to claim 41, wherein the continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

45. A method for manufacturing a thin film transistor, which is characterized in forming a crystalline semiconductor film using a beam irradiation apparatus, said beam irradiation apparatus having means for scanning a continuously output energy beam on an irradiated object, the means for scanning having N number of specular bodies ($1 \leqq n \leqq N$: n is an integer number) so as not to contact each other, the N number of specular bodies being fixed to a shaft so as to be set on an optical axis of the beam, rotating on the shaft as its center, and a relative position Y(n) to the irradiated object being set after scanning by an n^{th} specular body ends.

46. The method for manufacturing a thin film transistor according to claim 45 further comprising forming a gate electrode over the crystalline semiconductor film, and forming an impurity region in the semiconductor film using the gate electrode as a mask.

47. The method for manufacturing a thin film transistor according to claim 45, wherein a number of the specular bodies is more than one.

48. The method for manufacturing a thin film transistor according to claim 45, wherein a continuously output energy beam is a beam emitted from any one of a YVO_4 laser, a YAG laser, a YLF laser, a $YAlO_3$ laser, and an Ar laser.

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